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TRANSMITTAL
FORM

(to be used for all correspondence after initial filing)

Application Number	10/705,391
Filing Date	November 10, 2003
First Named Inventor	HUGHES, JOY VANNELIA
Art Unit	3732
Examiner Name	Unassigned
Attorney Docket Number	018563-005910US

Total Number of Pages in This Submission 13

ENCLOSURES (Check all that apply)

- | | | |
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| <input type="checkbox"/> Fee Transmittal Form
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Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Townsend and Townsend and Crew LLP	Reg. No. 29,541
Signature		
Date	September 7, 2004	

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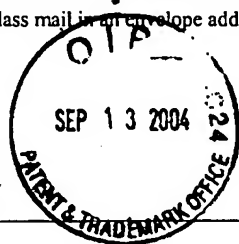
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PATENT
Attorney Docket No.: 018563-005910US
Client Reference No.: AT00030.2

TOWNSEND and TOWNSEND and CREW LLP

By:

Tiffany Wu

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

JOY VANNELIA HUGHES et al.

Application No.: 10/705,391

Filed: November 10, 2003

For: SYSTEM AND METHOD FOR
SEPARATING THREE-DIMENSIONAL
MODELS

Examiner: Unassigned

Art Unit: 3732

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER 37
CFR §1.97 and §1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Electronic copies of the references are enclosed on 1 CD-ROM disk.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

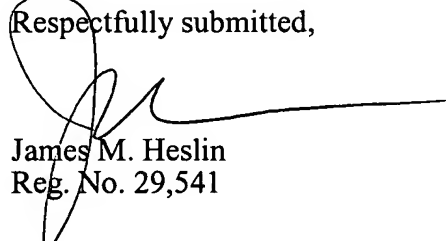
The references cited in the accompanying PTO/SB/08A and PTO/SB/08B, were identified by either or both parties in litigation between Align Technology, Inc., assignee of the above-referenced patent application, andOrmco Corporation in case no. SACV 03-16-GLT

(ANX) before the U.S. District Court, Central District of California, Southern Division, as being potentially relevant to the design, fabrication, and/or use of removable orthodontic appliances and/or to the use of computers or other automatic means for calculating final or intermediate tooth positions for orthodontic treatment.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



James M. Heslin
Reg. No. 29,541

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Substitute for form PTA49A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	10/705,391
		Filing Date	November 10, 2003
		First Named Inventor	HUGHES, JOY VANNELIA
		Art Unit	3732
		Examiner Name	Unassigned
Sheet 1 of 10	Attorney Docket Number	018563-005910US	

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	AA	2,467,432	04-19-1949	Kesling	
	AB	3,660,900	05-09-1972	Andrews	
	AC	3,860,803	01-14-1975	Levine	
	AD	3,916,526	11-04-1975	Schudy	
	AE	3,950,851	04-20-1976	Bergersen	
	AF	4,014,096	03-29-1977	Dellinger	
	AG	4,195,046	03-25-1980	Kesling	
	AH	4,324,546	04-13-1982	Heitlinger et al.	
	AI	4,348,178	09-07-1982	Kurz	
	AJ	4,478,580	10-23-1984	Barrut	
	AK	4,504,225	03-12-1985	Yoshii	
	AL	4,505,673	03-19-1985	Yoshii	
	AM	4,575,805	03-11-1986	Moermann, et al.	
	AN	4,611,288	09-09-1986	Duret et al.	
	AO	4,656,860	04-14-1987	Orthuber et al.	
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	AR	4,755,139	07-05-1988	Abbatte et al.	
	AS	4,763,791	08-16-1988	Halverson et al.	
	AT	4,793,803	12-27-1988	Martz	
	AU	4,798,534	01-17-1989	Breads	
	AV	4,837,732	06-06-1989	Brandestini et al.	
	AW	4,850,864	07-25-1989	Diamond	
	AX	4,856,991	08-15-1989	Breads et al.	
	AY	4,936,862	06-26-1990	Walker et al.	
	AZ	4,937,928	07-03-1990	van der Zel	
	BA	4,964,770	10-23-1990	Steinbichler et al.	
	BB	4,975,052	12-04-1990	Spencer et al.	
	BC	5,011,405	04-30-1991	Lemchen	
	BD	5,017,133	05-21-1991	Miura	
	BE	5,027,281	06-25-1991	Rekow et al.	
	BF	5,035,613	07-30-1991	Breads et al.	
	BG	5,055,039	10-08-1991	Abbatte et al.	
	BH	5,059,118	10-22-1991	Breads et al.	
	BI	5,100,316	03-31-1992	Wildman	
	BJ	5,121,333	06-09-1992	Riley et al.	
	BK	5,128,870	07-07-1992	Erdman et al.	
	BL	5,131,843	07-21-1992	Hilgers et al.	
	BM	5,131,844	07-21-1992	Marinaccio et al.	
	BN	5,139,419	08-18-1992	Andreiko et al.	
	BO	5,184,306	02-02-1993	Erdman et al.	
Examiner Signature				Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet	2	of	10	Attorney Docket Number	018563-005910US

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		Number Kind Code ² (if known)			
	BP	5,186,623	02-16-1993	Breads et al.	
	BQ	5,257,203	10-26-1993	Riley et al.	
	BR	5,273,429	12-28-1993	Rekow et al.	
	BS	5,278,756	01-11-1994	Lemchen et al.	
	BT	5,338,198	08-16-1994	Wu et al.	
	BU	5,340,309	08-23-1994	Robertson	
	BV	5,342,202	08-23-1994	Deshayes	
	BW	5,368,478	11-29-1994	Andreiko et al.	
	BX	5,382,164	01-17-1995	Stern	
	BY	5,395,238	03-07-1995	Andreiko et al.	
	BZ	5,431,562	11-11-1995	Andreiko et al.	
	CA	5,440,496	08-08-1995	Andersson et al.	
	CB	5,447,432	09-05-1995	Andersson et al.	
	CC	5,452,219	09-19-1995	Dehoff et al.	
	CD	5,454,717	10-03-1995	Andreiko et al.	
	CE	5,456,600	10-10-1995	Andreiko et al.	
	CF	5,474,448	12-12-1995	Andreiko et al.	
	CG	5,518,397	05-21-1996	Andreiko et al.	
	CH	5,533,895	07-09-1996	Andreiko et al.	
	CI	5,542,842	08-06-1996	Andreiko et al.	
	CJ	5,549,476	08-27-1996	Stern	
	CK	5,587,912	12-24-1996	Andersson et al.	
	CL	5,605,459	02-25-1997	Kuroda et al.	
	CM	5,607,305	03-04-1997	Andersson et al.	
	CN	5,645,421	07-08-1997	Slootsky	
	CO	5,655,653	08-12-1997	Chester	
	CP	5,683,243	11-04-1997	Andreiko et al.	
	CQ	5,733,126	03-31-1998	Andersson et al.	
	CR	5,740,267	04-14-1998	Echerer et al.	
	CS	5,975,893	11-02-1999	Chishti et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	CT	EP	091,876	A1	10-19-1983	Duret		<input type="checkbox"/>
	CU	EP	299,490	A2	01-18-1989	Steinbichler et al.		<input type="checkbox"/>
	CV	EP	376,873	A2	07-04-1990	Shafir		<input type="checkbox"/>
	CW	EP	490,848	B1	06-17-1992	Andersson et al.		<input type="checkbox"/>
	CX	EP	541,500	A1	06-12-1998	Andersson et al.		<input type="checkbox"/>

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		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	CY	EP	731,673	B1	09-18-1998	Andersson et al.		<input type="checkbox"/>
	CZ	EP	774,933	B1	05-28-1997	Oden et al.		<input type="checkbox"/>
	DA	FR	2,652,256	A1	03-29-1991	Jourda		<input type="checkbox"/>
	DB	FR	2,369,828	A1	06-02-1978	Suyehiro		<input type="checkbox"/>
	DC	WO	90/08,512	A1	08-09-1990	Lemcren		<input type="checkbox"/>
	DD	WO	91/04,713	A1	04-18-1991	Jourda et al.		<input type="checkbox"/>
	DE	WO	94/10,935	A1	05-26-1994	Andreiko et al.		<input type="checkbox"/>
	DF	WO	98/44,865	A1	10-15-1998	Andersson		<input type="checkbox"/>
	DG	WO	98/58,596	A1	12-30-1998	Chishti et al.		<input type="checkbox"/>

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/705,391	
			Filing Date	November 10, 2003	
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Sheet	4	of	10	Attorney Docket Number	018563-005910US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DH	ALEXANDER et al., "The DigiGraph Work Station Part 2, Clinical Management," JCO (July 1990), pp. 402-407.	
	DI	ALTSCHULER et al., "Laser Electro-Optic System for Rapid Three-Dimensional (3D) Topographic Mapping of Surfaces," <i>Optical Engineering</i> , Vol. 20(6) (1981), pp. 953-961.	
	DJ	ALTSCHULER et al., "Measuring Surfaces Space-Coded by a Laser-Projected Dot Matrix," <i>SPIE Imaging Applications for Automated Industrial Inspection and Assembly</i> , vol. 182 (1979), p. 187-191.	
	DK	ALTSCHULER et al., "Analysis of 3-D Data for Comparative 3-D Serial Growth Pattern Studies of Oral-Facial Structures," Program and Abstracts of Papers, Feb. 1975, <i>Journal of Dental Research</i> , Vol. 54, IADR Abstracts 1979, 2 pages total.	
	DL	ALTSCHULER, "3D Mapping of Maxillo-Facial Prosthesis," AADR Abstract #607, 1980, 2 pages total..	
	DM	American Association for Dental Research, Summary of Activities, March 20-23, 1980, Los Angeles, CA, p. 195.	
	DN	ANDERSSON et al., "Clinical Results with Titanium Crowns Fabricated with Machine Duplication and Spark Erosion," <i>Acta Odontologica Scandinavica</i> , vol. 47 (1989), pp. 279-286.	
	DO	BAUMRIND et al., "A stereophotogrammetric system for the detection of prosthesis loosening in total hip arthroplasty, Applications of Human Biostereometrics (NATO)," Proceedings of the Society of Photo-Optical Instrumentation Engineers, Vol. 166, July 9-13, 1978, pp. 112-123.	
	DP	BAUMRIND et al., "Mapping the Skull in 3-D, Reprinted from The Journal, <i>California Dental Association</i> , Vol. 48, No. 2 (1972 Fall Issue) 11 pages total.	
	DQ	BAUMRIND et al., "Seminars in Orthodontics," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), p. 222.	
	DR	BAUMRIND, "A System for Craniofacial Mapping Through the Integration of Data from Stereo X-Ray Films and Stereo Photographs," An invited paper submitted to the 1975 American Society of Photogram. Symposium on Close-Range Photogram. Systems, University of Ill., Aug. 26-30, 1975, pp. 1-25.	
	DS	BAUMRIND, "Integrated Three-Dimensional Craniofacial Mapping: Background, Principles, and Perspectives," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), pp. 223-232.	
	DT	BEGOLE et al., "A Computer System for the Analysis of Dental Casts," <i>The Angle Orthodontist</i> , Vol. 51 No. 3 (July 1981), pp. 253-259.	
	DU	BERNARD et al., "Computerized diagnosis in Orthodontics for Epidemiological Studies" (progress report), Abstracts of Papers, <i>Journal of Dental Research</i> ; Vol. 71, Special Issue March 1-14, 1992, pp. 28-36.	
	DV	BHATIA et al., "A Computer-Aided Design for Orthognathic Surgery," <i>British Journal of Oral and Maxillofacial Surgery</i> , Vol. 22 (1984), pp. 237-253.	
	DW	BIGGERSTAFF et al., "Computerized analysis of occlusion in the postcanine dentition," <i>American Journal of Orthodontics</i> , Vol. 61, No. 3 (Mar. 1972), pp. 245-254.	

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DX	BIGGERSTAFF, "Computerized Diagnostic Setups and Simulations," <i>The Angle Orthodontist</i> , Vol. 40, No. 1 (Jan. 1970), pp. 28-36.	
	DY	BRANDESTINI et al., "Computer Machined Ceramic Inlays: In Vitro Marginal Adaptation," <i>Journal of Dental Research</i> , Vol. 64/Special Issue/Abstracts, IADR/AADR Abstracts 1985, 1 page total.	
	DZ	BROOK et al., "An Image Analysis System for the Determination of Tooth Dimensions from Study Casts: Comparison with Manual Measurements of Mesio-distal Diameter, Abstract of Papers, 1985, Dept. of Children's Dentistry and Orthodontics, <i>J Dent Res.</i> , March 1986, pp. 428-431.	
	EA	BURSTONE (interview), "Dr. Charles J. Burstone on The Uses of the Computer in Orthodontic Practice (Parts 1 and 2)," <i>Journal of Clinical Orthodontics</i> , (Part 1) Vol. 8, No. 7, July 1979; (Part 2) Vol. 8, No. 8 pp. 539-551, Aug. 1979.	
	EB	BURSTONE et al., "Precision adjustment of the transpalatal lingual arch: Computer arch form predetermination," <i>Am. Journal of Orthodontics</i> , Vol. 79, No. 2 (Feb. 1981), pp. 115-133.	
	EC	CHACONAS et al., "The DigiGraph Work Station, Part 1, Basic Concepts," <i>JCO</i> (June 1990), pp. 360-367.	
	ED	CHAFETZ et al., "Subsidence of the Femoral Prosthesis, A Stereophotogrammetric Evaluation," <i>Clinical Orthopaedics and Related Research</i> , No. 201 (December 1985), pp. 60-67.	
	EE	CHIAPPONE, "Constructing the gnathologic setup and positioner" <i>J. Clin. Orthod.</i> , 14:121-133, 1980.	
	EF	COTTINGHAM, "Gnathologic clear plastic positioner" <i>Am. J. Orthod.</i> , 55:23-31, 1969.	
	EG	CRAWFORD, "Computers in Dentistry: Part 1: CAD/CAM: The Computer Moves Chairside," "Part 2: F. Duret — A Man With A Vision," "Part 3: The Computer Gives New Vision- Literally," "Part 4: Bytes 'N Bites' The Computer Moves From The Front Desk To The Operatory, <i>Canadian Dental Journal</i> , vol. 54(9), (1988), pp. 661-666.	
	EH	CRAWFORD, "CAD/CAM in the Dental Office: Does it Work?" <i>Canadian Dental Journal</i> , Vol. 57, No. 2 (Feb. 1991), pp. 121-123.	
	EI	CROOKS, "CAD/CAM Comes to USC," <i>USC Dentistry</i> , (Spring 1990) pp. 14-17.	
	EJ	CURETON, "Correcting malaligned mandibular incisors with removable retainers" <i>J. Clin. Orthod.</i> , 30:390-395, 1996.	
	EK	CURRY et al., "Integrated Three-Dimensional Craniofacial Mapping at the Craniofacial Research Instrumentation Laboratory/University of the Pacific," <i>Seminars in Orthodontics</i> , Vol. 7, No. 4 (Dec. 2001), pp. 258-265.	
	EL	CUTTING et al., "Three-Dimensional Computer-Assisted Design of Craniofacial Surgical Procedures: Optimization and Interaction with Cephalometric and CT-Based Models," <i>Plastic and Reconstructive Surgery</i> , Vol. 77, No. 6 (June 1986), pp. 877-885.	
	EM	DCS Dental AG, "The CAD/CAM 'DCS Titan System' for Production of Crowns/Bridges" <i>DSC Production AG</i> , Jan. 1992, pp. 1-7.	

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	EN	DEFRANCO et al., "Three-Dimensional Large Displacement Analysis of Orthodontic Appliances," <i>J. Biomechanics</i> , Vol. 9 (1976), pp. 793-801.	
	EO	Dental Institute University of Zurich Switzerland, Program for International Symposium on Computer Restorations: State of the Art of the CEREC-Method, May 1991, 3 pages total.	
	EP	DenTrac Corporation, Dentrac document, pp. 4-13.	
	EQ	DURET et al., "CAD-CAM in Dentistry," <i>Journal of the American Dental Association</i> , Vol. 117 (Nov. 1988), pp. 715-720.	
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			Art Unit	3732	
			Examiner Name	Unassigned	
Sheet	7	of	10	Attorney Docket Number	018563-005910US

NON PATENT LITERATURE DOCUMENTS			
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	GD	PONITZ, Invisible Retainers, 59 <i>Am. J. Orthodontics</i> , March 1971, pp. 266-272.	
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	GK	RICHMOND et al., Research Reports, "The development of a 3D Cast Analysis System," <i>British Journal of Orthodontics</i> , pp. 53-54.	
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	GZ	VAN DER ZEL, "Ceramic-fused-to-metal Restorations with a New CAD/CAM System," <i>Quintessence International</i> , vol. 24(11) (1993), pp. 769-778.	
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